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**ABSTRACT**

This second edition of the "Parent's Guide to the Internet" is intended to help parents--regardless of their level of technological know-how--make use of the online world as an important educational tool. This booklet provides parents with basic information about how to use the computer to find information and communicate with others. It describes what is needed to get started on the Internet and points to some of the many resources available online for parents and children. The booklet discusses: benefits of using the Internet; computer hardware and software basics; choosing an Internet service provider for online service; basics for exploring the World Wide Web and communicating with others on the Internet; Internet safety tips to ensure that children have safe, productive, and enjoyable experiences on the Internet; encouraging information literacy; supporting school use of technology; and sample Internet sites. A glossary of computer and Internet terms is provided. (AEF)



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# Parent's Guide to the



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THE WHITE HOUSE  
Washington

***A Message to Parents  
About the Internet***

As President, one of my top priorities is to ensure that our children have the best education in the world. Vice President Gore and I believe that one of the ways to accomplish this is to give every child access to educational technology in this new century. This will require connecting every classroom to the Internet, giving teachers the training they need to use technology effectively, expanding the supply of high-quality educational software, and increasing the number of modern, multimedia computers in the classroom. A recently released national survey that found the number of 2- to 17-year-olds logging into cyberspace has tripled since 1997. But we must do more to ensure that all of our nation's children have access to overcome the digital divide. For the first time in our nation's history, all of our children will have access to the same universe of knowledge and the opportunity to acquire the skills they need to succeed in the high-tech workplace of the 21st century.

It is critical that our children have your guidance as they learn to use the Internet. Although children can use the Internet to tap into the Library of Congress or download pictures from the surface of Mars, not all of the material on the Internet is appropriate for children. As a parent, you can guide and teach your child in a way that no one else can. You can make sure that your child's experience on the Internet is safe, educational, and enjoyable.

Of course, not all of us are familiar with computers and the Internet. To help you get started, I asked Secretary Riley and the U.S. Department of Education to prepare a *Parent's Guide to the Internet*. The first edition of the Guide was published in November 1997 with a reprint in September 1998 and over 200,000 copies were distributed. This second edition will give you updated information you need to help guide your child's exploration of the vast resources on the Internet.

I commend you for helping to give America's children this unprecedented opportunity to learn and to grow. Working together, we can create a brighter future for them and for our nation.

Bill Clinton

# *Parent's Guide to the Internet*

**U.S. Department of Education  
Washington, DC**

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## *Foreword*

More than ever before, a high-quality education offers Americans the best path to a rewarding career and a fulfilling quality of life. As citizens of the information age, we must include access to technology among the elements of an education that is based on high standards of achievement and discipline. But incorporating technology into the nation's schools and libraries is too big a job for communities to tackle on their own. Teachers and librarians need support and involvement from parents, grandparents, business, cultural institutions, and others in order to make effective in-class use of the wonders of technology. And many communities lack the resources to take full advantage of these lifelong learning tools.

This second edition of the *Parent's Guide to the Internet* is intended to help parents—regardless of their level of technological know-how—make use of the online world as an important educational tool. The Guide cuts through the overwhelming amount of consumer information to give parents an introduction to the Internet and how to navigate it. I am especially pleased that the Guide suggests how parents can allow their children to tap into the wonders of the Internet while safeguarding them from its potential hazards. I hope it will also stimulate new partnerships and involvement so that we move rapidly toward a time of digital opportunity rather than a digital divide.

This Guide was produced with the sort of collaborative effort that our schools need in order to succeed. The U.S. Department of Education staff worked with leaders from parent and education organizations, the private sector, nonprofit groups, and others in order to give you a clear and comprehensive overview of the Internet and its vast educational potential. I encourage you to find ways for families, employers, and civic organizations to pitch in and increase these technological learning opportunities for all.

Richard W. Riley  
Secretary of Education

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## How to Use This Booklet

For many of us, computers are exciting, but puzzling. Our children know far more about computers than we do! How do we bridge the gap between what our children know and what we know to be able to assist them with their schoolwork and help them prepare for the information age of the new millennium? After all, being able to use technology is rapidly becoming a requirement for being an informed citizen and a productive worker.

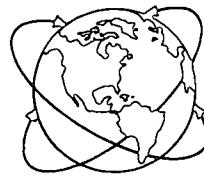
Whether your children are experienced computer users or just getting started, they need your involvement, your experience, and your judgment. This booklet is designed to provide you with basic information about how to use the computer to find information and communicate with others. It tells you what you need to get started on the *Internet*—a vast network of computers that connects people and information all over the world—and points you to some of the many resources available online for parents and children.

You'll find that the vocabulary of computers is taken from sources familiar to us. Computer language is borrowed from travel: *engine, surfing, navigating*; from restaurants: *menu, server*; and from the environment: *Web, mouse, windows, site*. Computer vocabulary can also be descriptive of the movement or sound made to do something on the computer: to "click" or "drag" the mouse, for example. Other words come from words used for medieval manuscripts: *icon, scroll, cursor*. In the following sections, you'll find several key computer terms capitalized. These words are defined in the glossary at the end of this booklet.

You can see there is a great deal of variety in the thinking behind computers. Since the computer world is constantly growing and changing, there is some variety among different computer systems and programs, as well. As you begin using the computer, you may notice some differences between instructions in this booklet and those in your owner's manual. Feel free to experiment and explore.

## What Is the Internet?

When we talk about getting online, we mean connecting to the INTERNET. The Internet has a lot in common with other forms of communication:



World Wide Web

- Like the U.S. Postal Service—the Internet allows anyone who knows your Internet ADDRESS to send you a letter. (It's called ELECTRONIC MAIL, or E-MAIL, for short.)
- Like the telephone—the Internet allows you to "chat" with other people by participating in online discussion groups.
- Like the library—the Internet contains information on almost any topic you can imagine and in many formats, including books, articles, videos, and music recordings.
- Like the newspaper—the Internet can give you daily information, including world news, business, sports, travel, entertainment, and advertisements.

In addition to words, one part of the Internet—the WORLD WIDE WEB (often shortened to

WWW or the Web)—is especially interesting to people because it includes pictures, sounds, and even videos.

#### **A Short History Lesson**

The Internet began in the 1960s as a U.S. Department of Defense communication network. Soon after, university researchers and professors began to use it to communicate with others in their fields. Internet use really took off in the early 1990s with the arrival of the Web, which made it easier to find and view information online. Today, millions of people throughout the world are connected to the Internet. No one—no country, organization, or company—is in charge of the Internet; it's growing and being changed by its users every day.

### ***Benefits of Using the Internet***

A computer that is connected to the Internet allows you to turn your home, community center, local library, or school into a place of unlimited information and communication. It's an excellent way for your children to work on school and family projects. Your family can use the Internet to:

- **Find information**, including up-to-the minute news, copies of important documents and photos, and collections of research on topics ranging from medicine and health to weather conditions to population statistics.
- **Expand educational and professional opportunities** through distance education and professional training programs, online college admission forms and financial aid applications, and electronic student/teacher and professional networks.

- **Get help with homework** through online encyclopedias and other reference materials and access to experts. (See "Reference Sites" on page 20 for online homework assistance and reference materials.)
- **Increase reading skills** by accessing interesting materials and suggestions for additional reading.
- **Improve technology and information skills** necessary to find and use information, solve problems, communicate with others, and meet a growing demand for these skills in the workplace.
- **Connect with places around the world** by exchanging mail with electronic pen pals, practicing a second language, and learning about other cultures and traditions.
- **Network with people who have similar interests** by participating in LISTSERVs and by creating a Web site where relatives and friends can view your family's stories, artwork, pictures, and other items of interest.
- **Locate parenting information** and swap ideas with other families.
- **Learn and have fun together** by sharing interesting and enjoyable experiences.

In the next few sections, we'll discuss what you need to start using the Internet.

### ***Getting Started***

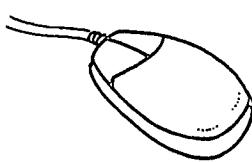
It's not necessary to buy a computer to begin exploring the Internet. You may be able to get started using free facilities in your community. You might try:

- **A public institution**, such as a library or community center. Some public housing complexes also have free computer centers with online access for their residents.
- **Public access centers**, such as cafes, hotels, shopping malls, convention centers, and other places where courtesy computers are available.
- **An educational institution**, such as your children's school or a community college or university.
- **Your employer**, who may encourage you to learn new online skills by using company computer equipment. It's a good idea to check your company's Internet usage policy.

Some communities sponsor FREE NETS to give all their members free access to a wealth of information. To see if there is a freenet in your area, have someone with Web access go to the **Freenets and Community Networks Web Site** (<http://www.lights.com/freenet>).

### ***Understanding the Basics***

To take advantage of online offerings, you need a computer, which typically includes a keyboard, **PROCESSOR** or **MICROPROCESSOR**, **MONITOR**, **MOUSE**, **MODEM**, **SURGE PROTECTOR**, and **CD-ROM** and disk drives for loading application **SOFTWARE**. You will also need a **WEB BROWSER** (for example, **Netscape Communicator** or **Microsoft Internet Explorer**) and a program such as **Eudora** or **Microsoft Outlook** for sending and receiving e-mail.



### ***Options for Accessing the Internet: What Is Right for My Family?***

The most common ways to access the Internet are dial-up services, WebTV, cable modem, digital subscriber line (DSL) or integrated services digital network (ISDN), and wireless/satellite. Before you choose an access option, you should consider:

- **Cost.** Will you pay a monthly fee for unlimited usage or pay by the hour for actual time online? Will you pay the price of a local call or a long-distance call each time you go online?
- **Speed.** How fast will the connection be? Speed is becoming more important as graphics, audio, and video become more common on the Web.
- **Technical Support.** If you have trouble with your connection, what kind of telephone help (technical support) is available?
- **Contract.** Is there a free trial period or will you be able to get a refund for the unused part of a service contract? A flexible contract can be helpful as you experiment to find the service that best meets your family's needs.
- **Convenience.** Will you want to use your telephone while you or another family member is browsing the Internet? If so, you can either install a second phone line or access the Internet via cable modem, ISDN or DSL, or wireless/satellite.

Brief descriptions of Internet access options are provided below. Call an **INTERNET SERVICE PROVIDER** (ISP) for current prices.

**Dial-Up Service.** The most affordable type of Internet access is dial-up service, which uses your modem and telephone line to connect your computer with the Internet. To find listings of ISPs, see your local phone directory or visit **The List** (<http://www.thelist.com>).

**Online Services** (other dial-up ISPs) provide users with access not only to the Internet but also to exclusive resources, such as children's areas and **CHAT ROOMS**, as well as travel-planning and financial-management services. Consequently, online services charge higher monthly fees than ISPs do. Online services also are included in the listings of ISPs in the local phone directory and **The List**.

**TV access** allows you to connect to the Internet without a computer. It uses your telephone line to deliver online content to your television screen, which acts as a monitor. You purchase a set-top box (similar to a cable TV box) and pay a monthly connection fee that includes a hand-held remote for Web surfing. Wireless keyboards are also available to use with this service. Typing in "tv internet" using a Web search engine leads you to several companies that provide access to the Internet by way of your television.

**Cable Modem.** This option uses your cable TV line to deliver online content to your computer. This type of access is faster (and more expensive) than dial-up service. To learn more about cable modems, visit **The Cable Modem Information Network** (<http://www.cable-modem.net>).

**Digital Subscriber Line (DSL) and Integrated Services Digital Network (ISDN).** DSL and ISDN provide fast Internet access through your telephone line. Both

services carry voice and data signals simultaneously so you are able to use your phone and your fax or computer at the same time. The speed and convenience of DSL and ISDN come with a hefty price tag and availability is limited; visit **DSLreports** (<http://dslreports.com>) and **ISDN Today** (<http://www.isdnshop.com/isdn-service.html>) to find out about the options available in your area.

**Wireless/Satellite.** This option allows you to access the Internet via satellite, without the need for a physical connection through a telephone jack or TV cable. Although it will eventually be possible to link any computer, regardless of its location, to the Internet via satellite, now wireless/satellite access is available only in specific areas and can be one of the most expensive options for Internet access. To find out if wireless/satellite access is available in your area, try contacting your local ISP, phone company, or provider of satellite TV service.

### ***Buying the Computer You Need***

If you're thinking about buying a computer to access the Internet, keep these considerations in mind:

**Talk with your family and decide how the computer will be used.** Will you be using the computer mostly for typing (word processing) school assignments, sending and receiving e-mail, or browsing the Web? Do you need sound and video capabilities for accessing World Wide Web sites, developing multimedia presentations, and playing games, or can you do without these functions?

**Do your homework.** You can get guidance about buying a computer from many sources:

- Consumer guides, computer magazines, and books available at the public library.
- Family members, friends, coworkers, and computer experts at your child's school or your workplace.
- Workshops or classes sponsored by community colleges, libraries, and computer stores.
- Computer user groups.

**Become familiar with computer features so you can decide what makes sense for your family.** A computer's capabilities depend on its **HARDWARE**, such as:

- the size of its memory, measured in megabytes (MB) of RAM (random access memory);
- the speed of its processor, measured in megahertz (MHz);
- the size of its hard drive, measured in megabytes or gigabytes (GB); and
- the speed of its modem, measured in kilobits per second (Kbps).

The greater these capabilities (the larger the number), the more quickly you'll be able to move around the Internet, look at Web sites, and save and print files—and the more expensive you'll find the equipment to be.

**Decide whether to invest in new or used/refurbished equipment.** When you buy a new computer, you'll generally receive everything you need to go online immediately. New

computers currently range in price from \$1,200 to \$3,500; however, some companies are offering new computers for less than \$1000. Check with your local computer store for details.

For several hundred dollars, in contrast, you may be able to buy a used/refurbished computer and printer and add on a modem and communications software. This equipment may be all your family needs to write letters and school reports, use e-mail, and browse the Web. Of course there will be tradeoffs in terms of speed and performance, and you could run a higher risk of equipment breakdown. Some stores specialize in refurbishing used equipment. If you take this route, find out what parts are new before you buy, and ask whether you can get a warranty. Also, with any used computer, make sure that any software that is included is a licensed version.

**Add upgrades over time.** You can buy additions you want or need later and install the upgrades yourself as you learn more about working with computers. Before you buy software, ask someone you know with Web access to check sites that provide information on what free and low-cost programs are available through the Internet.

## *Internet Basics*

This section will help you begin to explore the World Wide Web and communicate with others on the Internet.

### *Surfing the Net*

When you access the Internet, you may have a specific destination in mind, or you may wish to browse the Web the way you would browse a

library or a catalog—by looking for topics or things that interest you. This browsing is often called surfing the Net. There are several ways to get around on the Web:

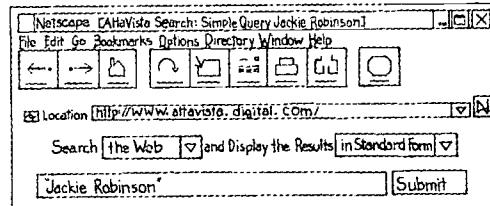
- **Using Web addresses.** To get to a special destination, such as one of the sites described in “Internet Sites” (see page 14), you’ll type in an Internet address in the space provided on the Web browser. Web addresses, sometimes called UNIFORM RESOURCE LOCATORS (URLs), begin with “*http://*,” which stands for HYPertext Transfer Protocol. After you type in the Web address, it may take a while for the site’s HOME PAGE to appear on the screen, especially if it includes many pictures. Once it appears, you’ll probably see several choices you can click your mouse on to take you further into the site. (If too many people are trying to access a site at the same time, you’ll get an error message on your computer screen. Just try again.)
- **Following hypertext links.** Many sites include HYPertext Links (more often just called “links”) to other sites with related content. When you click on one of these highlighted areas, your computer will connect to another Web site without your having to know or type its address.
- **Using search engines.** SEARCH ENGINES are programs that enable you to search the Internet by keywords or topics. If you and your child are interested in finding out more about Jackie Robinson, for example, you can click on a search engine, enter his name, then pull up several Web sites for further exploration (see box on this page).

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**Using the Internet To Do A School Project**  
Assignment: Write a 2-3 page essay on the life of Jackie Robinson. Include facts about his life, his greatest accomplishments, and why you believe he deserves a place in history.

Here’s how you can find the information to do this project:

- Access the Internet; once connected, click the mouse on the search key.
- From the menu, select a search engine. (Here we have selected Alta Vista).
- In the subject box, type in Jackie Robinson and click on the search key.



- Review search results: “Found 1 category and 19 site matches for Jackie Robinson.”
- Select one or all site matches (all sites are underlined. Each site has additional sites for more information).
- Print or DOWNLOAD all the information you need for the essay.
- Use this information to write the report.

There are hundreds of search engines to choose from, and you may find it helpful to use more than one. If a search on one engine doesn't produce good results, try another. With practice, you will get a better sense of the strengths and weaknesses of different engines.

**Search Engine Watch** (<http://www.searchenginewatch.com/links>) provides an extensive list of available search engines, as well as, regional and international search engines. **All-in-One** (<http://allonesearch.com>) also provides a list of search engines that match almost every interest imaginable—for example, the site includes the "Fish Finder," a database of Web sites concerning fish.

The **Internet Public Library** (<http://www.ipl.org/ref/websearching.html>) provides detailed information about the pros and cons of these and many other search engines.

Although search engines can have their own features and commands, some features are universal. To familiarize yourself with important search fundamentals, see "Search Engine Math" on the Search Engine Watch Web Site (<http://www.searchenginewatch.com/facts/index.html>). Search Engine Watch also provides information on more advanced search techniques. In addition, most search engines include a "Help" menu that describes their specific features.

If you don't want to switch back and forth between different search engines, you might prefer to use a **METACRAWLER** or **METASEARCH ENGINE**. Metacrawlers send your search terms to several search

engines simultaneously. The results from the different search engines are then sorted for you. See **Search Engine Watch** (<http://searchenginewatch.com/links/Metacrawlers>) for a comprehensive list of the dozens of Metacrawlers available.

- **Using BOOKMARKS and FAVORITES.** As you browse the Internet, you'll probably find sites you'll want to revisit. If so, you can create a bookmark (if you are using Netscape) or a favorite (if you are using Microsoft) by saving the site's address to your browser, usually with just a click of the mouse. The help feature on your Web browser can give you specific instructions. When you want to return to the site, you'll just click its address on your list of bookmarks.

### *Saving Information From the Internet*

You'll probably come across information on the Internet you want to keep. You can either print a paper or "hard" copy directly from the Web or download a copy of the information to your computer.

- **Printing a copy.** While you're looking at the information you want to print, you can click on the print command (click "File" on your browser's toolbar, then click "Print") or the print ICON, and the printer connected to the computer will print a copy for you. Using the mouse, you can also highlight the information you would like to print and click on the print command or icon. Text usually prints quickly, but

graphics can take somewhat longer. If you don't need the images, you may wish to check your online help feature to see how to remove them before printing.

- **Downloading a copy.** If you'd like to save the information you've found on the Internet to your computer (perhaps to include it in a report or send it by e-mail to someone else), click "File" on your browser's toolbar, then click "Save As." Name the file, select or create the folder in which you'd like to store the information, then click "Save." Be careful, though. When you travel online, you can bring back VIRUSES, or programs that can destroy your personal files and software. For protection, it's important to buy—and regularly update—an antivirus program. Many virus protection programs are now available free of charge on the Web. For added safety, download files and e-mail messages to a disk and do a virus check before copying the information to your computer's hard drive.

### *Electronic Communication*

A popular online activity is communicating with individuals and groups through e-mail, instant messaging, listservs, and USENET NEWSGROUPS.

- **E-mail.** You and your children may want to send notes to friends and family. To send an e-mail message, you'll need your own e-mail account—available from Internet service providers (ISPs)—and the recipient's e-mail address. E-mail addresses often start with a version of the person's name and continue with the "at" sign (@), the ISP's name

(usually abbreviated), a period (called "dot"), and a three-letter extension. Extensions include *com* for businesses, *edu* for educational institutions, *gov* or *mil* for the federal government, *org* for nonprofit organizations, and *net* for networks. Make sure that when you type an address, you key it exactly as it is given to you—copy the capitalization, spacing, and punctuation. Some examples of e-mail addresses are:

*jay\_doe@ed.gov*  
*cbass@school.edu*  
*sgreene@nonprofit.org*

- **Instant Messaging.** Available from most ISPs, instant messaging is similar to sending and receiving e-mail, but it enables you to communicate with other computer users in real time, or "live." Whenever you receive a message from anyone on your "buddy list" (designated friends, family members, teachers, coworkers, and others), your computer alerts you immediately. In addition, if you're looking for someone to chat with, you can look to see which of your buddies is online and then send a message to him or her. You may find it helpful to limit your child's use of Instant Messenger, which is particularly popular with teenagers.

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**Important:** Play it safe on the Internet. Never use your real name. This will make it difficult for strangers to contact you and other family members by phone or in person. For more information, see "Internet Safety Tips" on page 10.

- **Listservs.** You can use e-mail to participate in discussion groups that focus on topics of

interest. When you subscribe to a listserv, you can read all the messages sent to members of the group, and you, too, can send messages to the entire group. Each group has an administrator who sets the rules for how the group will operate. If the listserv is moderated, the administrator will also keep the discussion on track and make sure participants treat each other courteously, or follow NETIQUETTE. A list of listservs, as well as the e-mail addresses for subscribing to them, is available at **Liszt** (<http://www.liszt.com>).

- **Usenet newsgroups.** Usenet is a system of thousands of special interest groups that allows people to post messages for anyone else to read. Readers can respond by posting a general message or sending an e-mail to the author of an earlier message. Unlike listservs, Usenet newsgroups do not require people to subscribe; however, newsgroups must be registered with Usenet. You can probably find newsgroups through your ISP. Most ISPs let you search for newsgroups that interest you by using keywords. Try “parenting,” for example. Because Usenet newsgroup messages can take up a lot of space, ISPs aren’t able to carry all newsgroups. If you know of a newsgroup but can’t find it, ask your ISP administrator whether it can be added.

**Caution:** Most newsgroups are not moderated; no one keeps the discussion focused on the topic or exercises control over inappropriate behavior. Many topics are not suitable for children.

#### Children with Special Needs

Children with special needs can often benefit from the use of assistive technology to support communication, self-expression, and positive social interaction. Parents and teachers tell stories of children who overcome obstacles and achieve success online—the child with a writing disability who wins second place in a nationwide writing contest, or the teenager with a learning disability who becomes an electronic pen pal with a scientist across the country who shares his fascination with fossils.

Technology is available to help people with special needs. If your child has a mobility or sensory impairment, for example, you may decide to replace the mouse with another device for giving the computer commands. A joystick, for instance, can be controlled with the entire hand. Other devices require only a single finger for control. Magnifying the screen can help individuals with poor vision, while voice synthesis technology can read screen information to those who are visually impaired.

**The ERIC Clearinghouse on Disabilities and Gifted Education** (<http://ericec.org>), operated by the Council for Exceptional Children, offers information about disabilities and accommodations. For more information, call 1-800-328-0272 or TTY 703-264-9449, or send an e-mail to [ericec@cec.sped.org](mailto:ericec@cec.sped.org).

Other resources include **Winners on Wheels** (<http://www.wowusa.com>), which uses learning and fun to promote self-esteem and independence in children with disabilities; **Equal Access to Software and Information** (<http://www.isc.rit.edu/~easi>), which provides information on adaptive computer technology for individuals with disabilities; **CAST** (<http://www.cast.org>), which has developed a Universal Design for Learning that promotes computer software and learning models that can be used by individuals with disabilities or those who are gifted; and **Starbright** (<http://www.starbright.org>), which applies the latest advancements in technology to improve the lives of children with disabilities.

## *Internet Safety Tips*

Like most parents, you probably have rules for how your children should deal with strangers, what TV shows, movies, and videos they're allowed to watch, what stores they're allowed to enter, and where and how far from home they're allowed to travel. It's important to make similar rules for your children's Internet use and to be aware of their online activities.

You'll also want to make sure that surfing the Net doesn't take the place of homework, social activities, or other important interests. If you or your child tends to lose track of time, you might even set an alarm clock or timer while on the Internet. This section offers tips for ensuring that your children have safe, productive, and enjoyable experiences on the Internet.

### *Interacting with Others on the Internet*

Just as we tell our children to be wary of strangers generally, we need to tell them to be wary of strangers on the Internet. Most people behave reasonably and decently online, but some act inappropriately or even criminally. Make sure your children know that people they meet online are not always who they say they are and that online information is not necessarily private.

Teach your children that they should:

- **Never** give out personal information (including their name, home address, phone number, age, race, family income, school name or location, or friends' names) or use a credit card online without your permission.

- **Never** share their password, even with friends.
- **Never** arrange a face-to-face meeting with someone they meet online unless you approve of the meeting and go with them to a public place.
- **Never** respond to messages that make them feel confused or uncomfortable. They should ignore the sender, end the communication, and tell you or another trusted adult right away.
- **Never** use bad language or send mean messages online.

The Children's Online Privacy Protection Act (COPPA), which went into effect April 1, 2000, requires that commercial Web sites gain parental permission before they collect personal information from children under 13 years old. For more information about your children's rights and responsibilities under COPPA, see the Federal Trade Commission's **Kidz Privacy** Web Site (<http://www.ftc.gov/bcp/conline/edcams/kidzprivacy/adults.htm>).

### *Limiting Children to Appropriate Content on the Internet*

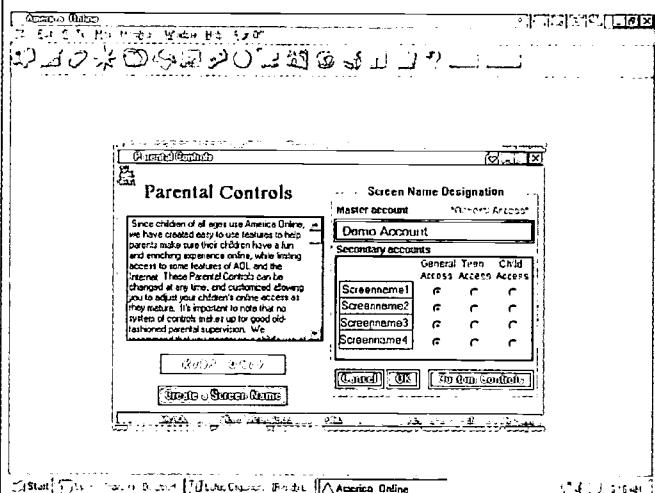
Even without trying, your children can come across materials on the Internet that are obscene, pornographic, violent, hate filled, racist, or offensive in other ways. One type of material—child pornography—is illegal. You should report it to the **National Center for Missing and Exploited Children** (<http://www.missingkids.org>) by calling 1-800-THE-LOST (843-5678).

Although other offensive material is not illegal, there are steps you can take to keep it away from your children and out of your home:

- Make sure your children understand what you consider appropriate for them. What kinds of sites are they allowed to visit? What sites are off limits? How much time can they spend online, and when? How much money, if any, can they spend online? Set clear, reasonable rules, as well as consequences for breaking them.
- Make online exploration a family activity. Put the computer in a much used area like the living room, kitchen, or family room. This arrangement involves everyone and helps you monitor what your children are doing.
- Pay attention to games your older child might download or copy. Some could be violent or contain sexual content.
- Look into software, online services, and search engines that filter out or block access to inappropriate materials. Options can be grouped in two categories: (1) client-based filters that you install on your computer to

either block out certain Web sites or filter out sites with explicit, violent, or other undesirable content and (2) server-based filters or filtered ISPs that can not only block inappropriate Web sites but also place restrictions on incoming and outgoing mail. More information, including a comprehensive list of client and server-based filters, is available on the **GetNetWise** Web Site (<http://www.getnetwise.org/tools/index.php3?definition=filters>). There are also many children's search engines and guides that filter or block inappropriate content. See the **Search Engine Watch** Web Site for links to dozens of children's search engines and guides ([http://www.searchenginewatch.com/links/Kids\\_Search\\_Engines](http://www.searchenginewatch.com/links/Kids_Search_Engines)). Be aware that children are often clever enough to disable filtering and blocking programs. Nothing can replace your supervision and involvement.

- Establish rules to guide your children's Internet use at home. Many schools are implementing Acceptable Use Policies (AUPs), which are contracts signed by students, parents, and teachers that spell out rules that children must follow when browsing the Internet at school, as well as consequences for breaking the rules. Parents can develop their own AUPs to guide their children's Internet use at home. For examples of parent/child AUPs, see the **GetNetWise** Web Site (<http://www.getnetwise.org/tools/toolscontracts.shtml>).



### *Helping Your Children Be Responsible "Cyber-citizens"*

Just as we teach our children how to be considerate and show respect for others, we

should also outline rules of appropriate behavior on the Internet. The U.S.

**Department of Justice (DOJ) Web Site** presents standards of behavior for "Netizens":

- Respect the privacy of other users on the Internet.
- Don't steal copyrighted computer programs (software) by copying them from the Internet.
- Don't try to break into, or "hack," computers.
- Don't make copies of any copyrighted material—for example, books, magazines, or music—without the permission of the author, publisher, or artist.
- Don't copy material from the Internet and claim it as your own work.

Parents may want to encourage their children to take the "Netizenship" exam on the DOJ's site (<http://www.usdoj.gov/kidspage/do-dont/kidinternet.htm>).

### ***A Note on Spam and Cookies***

One way that children can be exposed to inappropriate content on the Internet is through spam—commercially oriented junk mail. Spam can include advertisements for sexually explicit Web sites, as well as fraudulent get-rich-quick schemes and other scams designed to solicit personal information—or money—from recipients. Federal law now requires spam to include information about how recipients can remove themselves from the sender's mailing list. However, the best way to protect your children from spam is to tell them not to open

any e-mail from strangers or to consult you before they respond to any e-mail solicitations.

Cookies are devices that collect information about your Web browsing and buying habits. As you browse the Internet, some Web sites will attempt to place cookies on your computer's hard drive, allowing them to tailor advertisements to your purchasing preferences. However, many people prefer their activities on the Web to be private. Parents who are concerned about excessive marketing to children may want to limit the amount of personal information that companies can collect from them online. See **Cookie Central** (<http://www.cookiecentral.com/stopcm.htm>) for information on how to prevent cookies from being placed on your computer.

### ***Encouraging Information Literacy***

Information literacy is the ability to access, evaluate, and use information—including online information—effectively. Internet skills are a crucial component of information literacy. You can help your children develop Internet skills by:

- Spending time with them online. Guide them to noncommercial Web sites (such as the "Family Friendly Sites" on page 14) and encourage them to use the Internet to supplement their schoolwork (see "Reference Sites" on page 20 for resources). Help older children use the Internet to learn more about universities and colleges that they may be interested in attending. Many colleges let you take a "virtual tour" of the campus online.

- Teaching them about commercial information—including who creates it and why it exists. When you browse the Web with your children, ask them whether the sites they see are being used to sell products. Encourage them to think about why something is provided and appears in a certain way. A helpful exercise called “Get Your Web License Here” is available on the PBS Web Site (<http://www.pbs.org/kids/techknow>).
- Explaining to them that not all online information is reliable. Tell your children that anyone can put information on the Web. Some individuals and organizations are very careful about the accuracy of the information they post, but others are not. Some even purposely mislead. If your children are doing research on the Web, teach them to look for the author’s qualifications and the source of the author’s information.
- Showing them how to credit their sources. One guide for citing electronic information is available on the **Sarah Byrd Askew Library** Web Site (<http://www.wilpaterson.edu/wpcpages/library/citing.htm>).
- Encouraging them to use available technology to express their ideas. Give your children an e-mail address and show them how to use it. You can help them find pen pals on the Web by visiting the About.com guide to **Penpals for Kids** at (<http://kidspenpals.miningco.com/kids/kidspenpals>). Making a family Web site is an enriching activity and helps your

children learn important computer skills while giving them a chance to publish their work. Lessons, tools, and projects to help children create Web sites are available on **Webmonkey for Kids** (<http://hotwired.lycos.com/webmonkey/kids>) and **Lissa Explains It All** (<http://www.lissaexplains.com>). There are also many guides to Web page construction available for adults, such as **HTML: An Interactive Tutorial for Beginners** (<http://www.davesite.com/webstation/html>).

## *Supporting School Use of Technology*

You can encourage your children’s online activities at home and at school. Talk with your children, school staff, and other parents about what online experiences are already part of classroom activities and what is being planned. Get involved by:

- Helping schools acquire technology, including used equipment from government agencies or businesses. For information on computer recycling or donation programs, visit **The PEP National Directory of Computer Recycling Programs** ([http://www.microweb.com/pepsite/Recycle/recycle\\_index.html](http://www.microweb.com/pepsite/Recycle/recycle_index.html)), **The Computer Recycling Project** (<http://www.libertynet.org/share>), and **Computers for Learning** (<http://www.computers.fed.gov>).
- Helping schools get online. For more information, see the box “Special Opportunity for Schools” on page 14.

- Helping your school and community participate in **NetDay** (<http://www.netday.org>), a grassroots volunteer effort to wire schools so their computers are networked and have Internet access.
- Sharing your technological expertise by volunteering in the classroom or organizing training for teachers and other parents.
- Asking your local PTA to set up a “family night” on computers, technology, and the Internet.
- Helping schools develop acceptable use policies.
- Joining the school’s technology planning group.

**Special Opportunity for Schools**

In May 1997, the Federal Communications Commission (FCC) approved a rule known as the E-rate. Funded at up to \$2.25 billion annually, E-rate provides eligible schools with discounts on Internet access and other telecommunications services, including wiring school buildings for the Internet. Discounts range from 20 to 90 percent. (The amount of the discount depends on how many low-income students a school serves and whether it is located in a rural, suburban, or urban area.) For more information about available discounts, see **Schools and Libraries Division of the Universal Service Administrative Company** (<http://sl.universalservice.org>).

To apply for a discount, a school must have a technology plan that explains how the school will integrate technology into the curriculum. The plan must also address hardware, software, training, and maintenance issues. As a parent, you can play an active role in helping your school develop a technology plan.

## *Internet Sites*

This section offers a sampling of Internet sites available to you and your children. (Addresses are current as of June 23, 2000, **BUT MAY CHANGE AT ANY TIME**. If an address does not work, use the search feature on your Web browser to enter the site’s name and get the updated link.)

### *Family Friendly Sites*

- **50+ Great Sites for Parents & Kids** (<http://www.ala.org/parentspage/greatsites/50.html>), sponsored by the American Library Association (ALA), is especially suitable for preschool and elementary school children and their parents. Links include “The National Zoo,” and “Children’s Express,” (<http://www.cenews.org>) an award-winning online newspaper written for children by children. Parents can access links to information about how they can use the Internet to help their children grow and succeed without sacrificing safety.
- **Alphabet Superhighway** (<http://www.ash.udel.edu/ash>) contains educational games, an online library, tutorials to refine Web-searching skills, and a magazine and exhibit space where kids can share their work.
- **America Links Up** (<http://www.netparents.org>) is a public awareness and education campaign concerned with providing children with a safe and rewarding experience online. This Web site includes a slide show about how parents can guide their children on the Internet, information about and links to blocking and filtering software, and links to other appropriate sites for parents and children.

- **The ASPIRA Association, Inc.** (<http://www.inacorp.com/aspira>) provides a comprehensive list of links for Latino youth and families that includes Hispanic information resources, college bound resources, health education resources, family resources, and more.
- **The Children's Partnership** (<http://www.childrenspartnership.org>) hosts its own “Parents’ Guide to the Information Superhighway.” The section entitled “Getting Involved With Technology at School,” discusses how parents can help ensure that all children have access to the Internet. This Web site also provides an annotated list of related Web sites and includes parent-child activities, information about Netiquette, and other topics. Information on this site is presented in Spanish as well as English.
- **Connect for Kids, Guidance for Grownups** (<http://www.connectforkids.org>) provides “Connect for Kids Weekly,” an online magazine that features issues facing children and families today, such as children’s mental health and foster care.
- **DiscoverySchool.com** (<http://school.discovery.com>) provides students with homework help, the “Science Fair Studio,” and educational games. Parents can access information about educational videos and software, and many homework help resources. To find dozens of links on schools, curriculum, and educational psychology go to Kathy Schrock’s “**Guide to Education Resources**” (<http://www.school.discovery.com/schrockguide/ed.html>).
- **The Exploratorium** (<http://www.exploratorium.edu>) provides interactive online science exhibits that children and their parents can view. Students will want to visit the “Learning Studio,” which has dozens of resources to help with science fair projects.
- **FamiliesConnect** (<http://www.ala.org/ICONN/familiesconnect.html>) was developed by the American Library Association for parents and children to use together. Parents can take an online course on how to use the Internet, families can visit the top 10 Internet sites together, and children can take advantage of “KidsConnect” (<http://www.ala.org/ICONN/kidsconn.html>), a question-and-answer service just for kids.
- **FamilyClick** (<http://www.familyclick.com>) includes homework help, games, reference materials, general interest articles, and other resources for children and their parents. FamilyClick is also an Internet service provider (ISP) that filters material unsuitable for children.
- **The Gristmill** (<http://cela.albany.edu/gristmill/index.html>) offers links ranging from homework help and a book club for school-aged children to full-text documents for parents on helping their children succeed in school.
- **Net-mom’s Internet Safe House** (<http://www.netmom.com>) has “100 Hot Sites for Families,” including Net-mom’s son and “The Net-mom News.”

- **Parents and Children Together Online** ([http://www.indiana.edu/~eric\\_rec/fl/pcto/menu.html](http://www.indiana.edu/~eric_rec/fl/pcto/menu.html)) is an online magazine with original stories and articles for children. A special section for parents features articles on issues related to children's reading and writing, as well as book reviews of children's literature.

### *Sites for Parents*

- **The U.S. Department of Education** (<http://www.ed.gov>) provides information about the President's education initiatives, college financial aid, and parenting publications, along with links to other useful education sites.
- **ALA Parent's Page** (<http://www.ala.org/parentspage>), sponsored by the American Library Association, covers topics such as "10 Ways Kids Connect @ the Library," "How To Raise a Reader," and "Good Books For Kids."
- **The Center for Media Education** (<http://www.cme.org>) includes information on Internet safety, WebTV, and high-speed Internet connections.
- **CyberAngels** (<http://www.cyberangels.org>) focuses on Internet safety. It hosts a nationally recognized "Net Patrol" of volunteers who search the Web for stalkers, child predators, scam artists, and groups advocating child abuse, pedophilia, hate, and bigotry. The Net Patrol also searches for Web sites that display child pornography. CyberAngels includes practical tips for protecting yourself and your children online.
- **Cybertip Line** (<http://www.missingkids.com/cybertip>), sponsored by the National Center for Missing and Exploited Children, the U.S. Justice Department, and various ISPs, accepts reports of possible sexual exploitation of children in cyberspace.
- **The Family Education Network** (<http://www.familyeducation.com>) offers hundreds of brief articles on parenting, links to local sites, and discussion boards that connect parents with online experts.
- **Genealogy** (<http://www.usgenweb.com>) provides dozens of links to help visitors trace their family tree.
- **GetNetWise** (<http://www.getnetwise.org>) is a resource for families and caregivers to help kids have safe, educational, and entertaining online experiences. This Web site describes the risks kids face online and provides tips and tools that parents can use to help reduce these risks.
- **The National Coalition for Parental Involvement in Education** (<http://www.ncpie.org>) provides a catalog of resources available from its member organizations.
- **The National Parent Information Network** (<http://npin.org>), cosponsored by the ERIC Clearinghouse on Elementary and Early Childhood Education and the ERIC Clearinghouse on Urban Education, provides extensive information about parenting and includes links to more than 100 sites on education, health and safety, family issues and interests, and parenting and development of children from infancy to adolescence.

- **The National PTA** (<http://www.pta.org>) describes education programs sponsored by the Parent Teacher Association and gives parents an opportunity to participate in discussion groups. This site also includes links to Web sites of many other organizations that focus on children.
- **ParenTech** (<http://www.parentech.org>) is an information campaign, educating families about the ways technology is changing how people learn, work, and live. ParenTech brings together the latest research, practical tips, and places to go to learn more—all packaged in a kit of resources.
- **Parent Soup** (<http://www.parentssoup.com>) includes an archive of answers to questions asked of pediatricians and child development experts, as well as advice about helping children succeed in school.
- **Partnership for Family Involvement in Education** (<http://pnie.ed.gov>), sponsored by the U.S. Department of Education, highlights school-community-business partnerships and includes a calendar of events.
- **700+ Great Sites: Amazing, Spectacular, Mysterious, Wonderful Web Sites for Kids and the Adults Who Care About Them** (<http://www.ala.org/parentspage/greatsites/amazing.html>) is the American Library Association's "cybercollection" of links for children of all ages. Topics include "Arts and Entertainment," "Literature and Language," "People Past and Present," "Planet Earth and Beyond," and "Science and Technology." Special features include a Spanish language collection and home schooling resources.
- **Activities for ESL Students** (<http://www.aitech.ac.jp/~iteslj/s>) includes grammar quizzes, crossword puzzles, and Internet scavenger hunts—all designed especially for students who speak English as a Second Language.
- **Afterschool.gov: Web Sites for Kids and Teens** (<http://www.afterschool.gov/kidsnteens.html>) connects kids and teens to dozens of federally sponsored Web sites that cover art, business, science, politics, community service, and technology.
- **The Air Force** (<http://www.af.mil/aflinkjr/jr.htm>) provides educational games, information about the Air Force and its history, and "Air Mail" postcards to send electronically to friends.
- **Alfy Cool Sites** ([http://www.alfy.com/Cool\\_Sites](http://www.alfy.com/Cool_Sites)) is a Web guide for children between the ages of 3 and 9 years old. It features interactive stories, games, crafts, activities, and much more.
- **AOL@School** (<http://www.school.aol.com>) is a version of America Online

### *Sites for Children*

- **Federal Resources for Educational Excellence (FREE) for Students** (<http://www.ed.gov/free/kids.html>), sponsored by more than 30 federal agencies, is the Federal Resources for Educational Excellence Web Site for children. It offers a treasure trove of learning resources—math problems and solutions, reading activities, famous paintings, historical documents, scientific data, maps, Web-based tools, ask-an-expert services, and more.

specially for children and schools. This site links to educational materials sorted by grade levels and a software package that provides e-mail and an Internet filter.

- **Ben's Guide to the U.S. Government for Kids** (<http://bensguide.gpo.gov>) helps K-12 students learn how the U.S. government works and includes descriptions of the branches of government, the election process, and how a bill becomes a law.
- **Berit's Best Sites for Children** (<http://www.cochran.com/theodore/beritsbest>) provides thousands of links to information about such topics as crafts, coloring, holidays, seasons, and creatures great and small. This site also includes links to children's home pages.
- **Book Adventure** (<http://bookadventure.com>) is a free, nonprofit, kid-oriented online reading program designed to encourage students in grades K-8 to read more often, for longer periods of time, and with greater understanding. It offers stories, quizzes, contests, and awards.
- **E-play** (<http://www.eplay.com>) features homework activities and educational games (for children in grades 3-5) related to various topics, including math, science, and history.
- **The Franklin Institute Science Museum** (<http://sln.fi.edu>) offers colorful online exhibits for school-aged children on an array of science and technology topics.
- **Garrett A. Morgan Technology and Transportation Futures Program** (<http://education.dot.gov>) invites students of all ages to examine various modes of transportation, explore careers in transportation, and learn about the people who have affected the transportation field, including the Wright Brothers, Henry Ford, and Robert Fulton.
- **GLOBE** (<http://www.globe.gov>), Global Learning and Observations to Benefit the Environment, is a worldwide network of students, teachers, and scientists who work together to study the environment. Members of this network share information about their projects on the GLOBE Web Site. The site also offers a bulletin on GLOBE activities, information about how to get science classes involved in GLOBE, a resource room with chat groups related to GLOBE research topics, and links to information about science and environmental education.
- **Healthlinks** (<http://www.mcet.edu/healthlinks/index.html>) is a U.S. Department of Education project to improve access for adolescents to information on topics such as health, literacy, and work readiness. It includes "The Cybertimes of Reginald" (<http://www.mcet.edu/healthlinks/reginald>)—an award-winning Web page that addresses issues related to young adults—and "YouthLinks" (<http://www.mcet.edu/healthlinks/youthlinks>)—where teens teach teens about health. This Web site covers some sophisticated health issues; parents may want to supervise their children's use of this site.

- **The Jason Project** (<http://www.jasonproject.org>) gives children an opportunity to go on virtual underwater expeditions with world-famous explorer and oceanographer, Dr. Robert Ballard.
- **KidsClick!** (<http://sunsite.berkeley.edu/KidsClick!>) includes more than 4,000 links for children on topics such as machines, mythology, and literature. In addition to providing detailed descriptions of the sites, KidsClick! specifies the reading level for each site to which it refers.
- **Kids Corner** ([http://www\\_rrb.gov/teachers.html](http://www_rrb.gov/teachers.html)), a part of the Conversations With America Presidential Initiative, presents facts about railroads. Visitors can read about railroad salaries and job titles during the Depression, nicknames of past and present railroads, and slang terms used by railroad workers.
- **Kids Identifying and Discovering Sites** (<http://kids.library.wisc.edu>), a publication of the University of Wisconsin—Madison Libraries, offers “The KIDS Report,” a biweekly list of Internet resources on various educational themes, such as butterflies, the Civil War, and mathematics.
- **The Lemelson Center** (<http://www.si.edu/lemelson>), offered by the Smithsonian Institution, features in-depth explorations of the electric guitar, the Quartz watch, the light bulb, and other inventions that might appeal to middle or high school students. This site provides pictures and biographies of inventors.
- **LycosZone** (<http://www.lycoszone.com>) provides children with online videos and games as an after-school treat, as well as the more educationally oriented “Homework Zone.”
- **NASA’s Quest** (<http://quest.arc.nasa.gov>) gives K-12 students a chance to chat with NASA experts online. **Spacelink** (<http://spacelink.nasa.gov>) provides additional information about NASA and links to NASA’s Web Sites.
- **Oceanography: A Science and Technology Focus Site** (<http://www.onr.navy.mil/focus/ocean>), sponsored by the Office of Naval Research, explores ocean habitats, regions, and more. Learn how waves are created and where hydrothermal vents are found, or conduct one of the site’s experiments to find out why big ships don’t sink.
- **PBS Kids** (<http://www.pbs.org/kids>) gives children an opportunity to interact, learn, and play with their favorite Public Broadcasting characters online.
- **Schools Online** (<http://www.urbanext.uiuc.edu/schools>), developed by the University of Illinois extension, offers a wide variety of interactive activities for children.
- **Study Web: Links for Learning** (<http://www.studyweb.com>) includes links to more than 100,000 Web sites related to online homework help for older children. This site also includes hundreds of subjects and offers a pull-up menu called “Study Buddy” with links to encyclopedias, dictionaries, calculators, news, and maps.

- **TeenHoopla** (<http://www.ala.org/teenhoopla>) is a collection of online resources for teenagers developed by the Young Adult Library Service Association, a division of the American Library Association.
- **Thinkquest** (<http://www.thinkquest.org>) is an international program for teenagers that encourages them to use the Internet to create information-rich, Web-based educational tools and materials.
- **Web Schooling** (<http://www.webschooling.com>), suitable for children ages 12 and below, provides information, exercises, and quizzes on all subjects. This site is primarily intended to be a resource for students who are home schooled, but it can be of use to all children.
- **www.4kids.com** (<http://www.4kids.com>) publishes a weekly review of Web sites for children. This site also provides information on Internet safety that is written at an appropriate level for younger children.
- **The White House For Kids** (<http://www.whitehouse.gov/WH/kids/html/home.html>) offers a VIP tour of the White House, courtesy of the President's pets, Socks and Buddy. Visitors can learn lots of interesting facts about the White House, its history, and its inhabitants.
- **The Why Files** (<http://whyfiles.news.wisc.edu>), developed at the University of Wisconsin, features the latest news in science, math, and technology. Visitors can also join the site's online forum to

participate in discussions on topics such as why the night sky is dark, how big the universe is, who Albert Einstein was, and many more.

### **Reference Sites**

- **Federal Resources for Educational Excellence (FREE)** (<http://www.ed.gov/free>), sponsored by more than 30 federal agencies, provides hundreds of federally supported education resources available in one central location. Visitors can search all available materials for specific topics or browse links on a subject of interest, including arts, language arts, mathematics, science, social studies, and health and safety.
- **AskERIC** (<http://www.askaeric.org>) provides a popular, free question-answering service that is administered by the Educational Resources Information Center. The AskERIC Web Site also offers a virtual library and a "Toolbox" with links to educational resources.
- **The National Urban League** (<http://www.nul.org>) provides information on a wide array of issues regarding African-Americans. This is a reference site for students, parents, teachers, and history buffs and many others.
- **The American Academy of Pediatrics** (<http://www.aap.org>) has a wide variety of information for parents concerning their children's health and well being, covering topics such as immunizations, sleep problems, newborn care, and television.

- **Animal Diversity Web** (<http://animaldiversity.ummz.umich.edu>) is a virtual encyclopedia developed by the University of Michigan's Museum of Zoology. This Web site contains pictures of and detailed information about hundreds of animals.
- **B.J. Pinchbeck's Homework Helper** (<http://school.discovery.com/students>), created by a 13-year-old, is a guide to hundreds of encyclopedias, dictionaries, reference works, and other resources on a great variety of subjects.
- **Information Please: Kids'Almanac** (<http://kids.infoplease.com>) provides information about people, sports, science, and more.
- **The Internet Public Library: Reference Center** (<http://www.ipl.org/ref>) provides an ask-a-question service and a substantial teen collection, as well as sections on education, arts and humanities, and science and technology.
- **The Library of Congress** (<http://www.loc.gov>) is America's largest library, and its vast resources are available online. Visitors can review transcripts of proceedings in Congress or view exhibits on topics ranging from Native American flutes to Thomas Jefferson's pasta machine.
- **My Virtual Reference Desk** (<http://www.refdesk.com>) offers dozens of links—to dictionaries, encyclopedias, research materials, thesauruses, atlases, and much more—as well as a search engine for locating more information.
- **School Psychology Resources Online** ([http://www.bcpl.net/~sandyste/school\\_psych.html](http://www.bcpl.net/~sandyste/school_psych.html)) is an extensive annotated listing of information resources about Attention Deficit Hyperactivity Disorder (ADHD), adolescence, autism, learning disabilities, mental retardation, parenting, special education, and more.
- **The Virtual Reference Desk** (<http://www.vrd.org>) is a catalog of digital reference services that provides access to experts in all fields of knowledge.

## *Glossary*

**ADDRESS:** The unique location of an information site on the Internet (also called Uniform Resource Locator or URL), a specific file (for example, a Web page), or an e-mail user location.

**BOOKMARK (or FAVORITE):** A Web address that has been added to a list of saved links in the Web browser. It allows the user to click on the Web address without retyping it.

**CD-ROM:** A computer disk that can store large amounts of information.

**CHAT ROOM:** A location on an online service that allows users to communicate with each other in "real time" (or "live"), as opposed to delayed time as with e-mail.

**DOWNLOAD:** To copy a file from one computer system to another. From the Internet user's point of view, to download a file is to request and receive it from another computer (or from a Web page on another computer).

**ELECTRONIC MAIL (E-MAIL):** A way of sending messages electronically from one computer to another, generally through a modem and telephone line.

**FAVORITE:** See **BOOKMARK**.

**FREENET:** A community network that provides free online access, usually to local residents, and often includes its own forums and news.

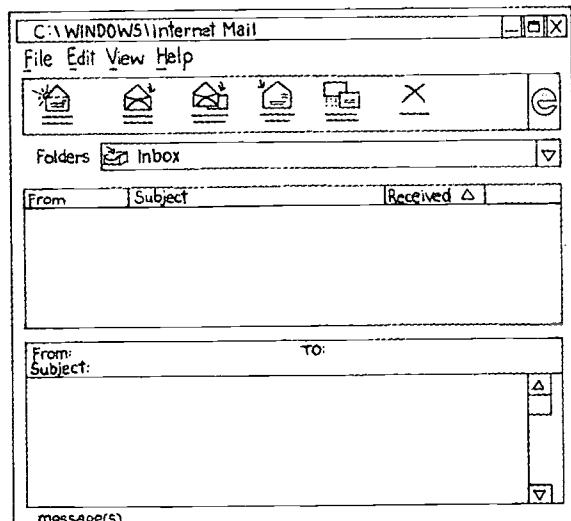
**HARDWARE:** A term for the nuts, bolts, and wires of computer equipment and the actual computer and related machines.

**HOME PAGE:** The site that is the starting point on the World Wide Web for a particular person, group, or organization.

**HYPertext link:** Highlighted words or icons in a document that take you to related documents or sites.

**HYPertext Transfer Protocol:** A standard used by World Wide Web servers to provide rules for moving text, images, sound, video, and other multimedia files across the Internet.

**ICON:** A small picture on a Web page that represents the topic or information category of another Web page. Frequently, the icon is a hypertext link to that page.



**INTERNET:** A worldwide collection of computer networks that allow people to find and use information and communicate with others.

**INTERNET SERVICE PROVIDER (ISP):** A generic term for any company that can connect subscribers directly to the Internet.

**LISTSERV:** Mailing lists on various topics that anyone with an e-mail address can subscribe to. Provides a resource for announcements and group discussions on topics of interest to participants.

**METACRAWLER OR METASEARCH**

**ENGINE:** A program that uses several different search engines and combines their results.

**MICROPROCESSOR:** See PROCESSOR.

**MODEM:** A device that allows computers to communicate with each other over telephone lines or other delivery systems by changing digital signals to telephone signals for transmission and then back to digital signals. Modems come in different speeds: the higher the speed, the faster the data is transmitted.

**MONITOR:** The computer screen.

**MOUSE:** A small hand-controlled device for pointing and clicking to select choices on the screen.

**NETIQUETTE:** Rules or manners for interacting courteously with others online (such as not typing a message in all capital letters, which is interpreted as shouting).

**ONLINE SERVICE:** A company such as America Online and Prodigy that provides its members with access to the Internet through its own special user interface, as well as additional services such as chat rooms, children's areas, travel planning, and financial management.

**PROCESSOR (or MICROPROCESSOR):** The hardware (primarily electrical circuits that are contained in the computer box) that allows a computer to run programs and respond to the user's input (via keyboard, mouse, joystick, etc.). This hardware was formerly called the Central Processing Unit or CPU.

**SEARCH ENGINE:** A program that performs keyword searches for information on the Internet.

**SOFTWARE:** A computer program or set of instructions. System software operates on the machine itself and is invisible to the user. Application software allows users to carry out certain activities, such as word processing, playing games, and creating spreadsheets.

**SURGE PROTECTOR:** A small device that regulates the amount of electric current that flows to the computer and other hardware, including the printer, monitor, external disk drives, and modem. The surge protector, which typically has a power switch and several utility outlets, protects the connected equipment from damage due to high-voltage surges in power.

**UNIFORM RESOURCE LOCATOR**

**(URL):** The World Wide Web address of a site on the Internet. For example, the URL for the White House is (<http://www.whitehouse.gov>).

**USENET NEWSGROUPS:** A system of thousands of special interest groups to which readers can send or "post" messages; these messages are then distributed to other computers on the network. Usenet registers newsgroups, which are generally accessible through ISPs.

**VIRUS:** A piece of programming code inserted into other programming to cause something unexpected and usually undesirable, such as lost or damaged files. Viruses can be transmitted by downloading files from other sites or a diskette. The source of the file is often unaware of the virus. The virus lies dormant until circumstances cause its code to be executed by the computer.

**WEB BROWSER:** A software program that lets online users find, see, and hear material on the World Wide Web, including text, graphics, sound, and video. Popular browsers include Netscape Communicator and Microsoft Internet Explorer. Most online services have their own browsers.

**WORLD WIDE WEB (Web or WWW):** A hypertext-based system that allows online users to link to Internet resources organized by colorful, graphics-oriented home pages.

## *Reviewers*

American Academy of Pediatrics  
<http://www.aap.org>

American Library Association  
<http://www.ala.org>

ASPIRA  
<http://www.incacorp.com/aspira>

The Children's Partnership  
<http://www.childrenspartnership.org>

The National PTA  
<http://www.pta.org>

The National Coalition of Title I/Chapter 1 Parents  
<http://www.ncticip@aol.com>  
202-291-8100

The National Parent Information Network  
<http://www.npin.org>

The National Urban League  
<http://www.nul.org>

The Partnership for Family Involvement in Education  
<http://www.ed.pfie.ed.gov>

Project OPEN  
<http://www.isa.net/project-open>

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